137

For a list of the economically useful plants of Iran and Iraq see MA1 Iran, 35: Hooper and Field, category 116, pp. 79-188.

For a list of native terms for useful plants see MA1 Iran, 35: Hooper and Field, category 116, pp. 217-241.

1: Longrigg G-4, 5 (ca. 1915-1940) MH1 Iraq MH1



Of the exports of 'Iraq's natural produce, dates were the most consistently important, and supplied, as they do today, a high percentage of the world's needs; and although in preparation, packing, and the technique of marketing the date merchants were backward, yet the culture itself, favoured by every natural advantage, was highly developed, and the famous 'Iraq dates found their way copiously to America, Europe, India, East Africa, and the Persian Gulf. Rice was a considerable but variable export. Wheat and barley—especially the latter—failed to supply exportable surpluses only in years of drought or locust visitation; but the quantities varied widely, and the quality was reckoned among the world's lowest. A few tons of the seed-crops, some gums and gall-nuts from Kurdistan, liquorice-root from the Tigris banks, were smaller but characteristic exports.

The shipping of Arab horses to India was ancient but fluctuating. Hides and skins were sent to Istanbul and Western Europe, clarified fat to India and the Red Sea, mohair to Istanbul and Europe, intestine-linings for sausage-making to America, dog-manure (under its trade-name of 'pure') for tanning to Austria. Various grades of local wool were pressed for export to America and London. By land to Syria went 'Iraqi camels, sheep by way of Mosul to Aleppo, cattle for Egypt, buffaloes for Anatolia.

The forest areas of the mountain belt of northern 'Iraq offered a potential resource of some interest. Between one-tenth and one-fifth of the higher mountains was covered by fairly well grown and productive forest, and as much again by scrub not incapable of improvement. This, in a territory deficient in timber of all kinds and forced expensively to import it, might have seemed to call for development to meet 'Iraq's needs of building-timber, date-boxes, furniture, and fuel. In fact, unchecked quantities of charcoal and fuel, poles for roofing, and foliage for cattle fodder were taken yearly by Kurdish villagers as, without forethought or control, their local supply seemed to make possible. Protection against grazing, encroachment or fire were all equally unconsidered, re-afforestation was ignored, and the stripped hill-sides were offered to the force of winter rains; the resulting erosion would, by way of the descending rivers, deposit the Kurdish silt in the canals of lower 'Iraq and create there an unending problem of clearance. The trees of Kurdistan were oaks of more than one species—including the giver of gall-nuts—and, less numerous, the juniper, wild pear, pistachio nut, walnut, and maple: and, by stream banks on the lower levels, the poplar, willow, mulberry, plane, and tamarisk.

Agriculture was by far the greatest industry in the territory, and the occupation of four-fifths of its inhabitants; yet with all its

7: International Bank N, S-4 (1951) 1952 MH1 Iraq MH1



***Forestry***

137 313 In a country where the plains are almost entirely devoid of trees and only the mountain valleys contain a few scattered forests, the importance of forests as a means of controlling erosion and floods and overcoming the acute shortage of timber needs no emphasis. The Mission did not give special attention to this problem because the government has already received an excellent detailed report and recommendations from a British expert. It wishes only ~~to stress~~ that it is important not only to protect and extend the forests in the mountain areas, but also to undertake the planting of trees in the plains to serve as windbreaks and as sources of fuel and building timber. In the Dujaila project an encouraging beginning has been made with the planting of trees along roads and boundaries. In future settlement schemes it might be well to require farmers to plant and maintain small wood lots. To carry out a proper program the Forestry Department, which is now only a division within the Department of Agriculture, should be given an independent status and headed, as at present, by a well-trained foreigner. The training of an adequate number of foresters should also be undertaken.

***Establishment of a Ministry of Agriculture***

447 Agriculture, livestock-raising and forestry are of such critical importance to Iraq that they merit a separate ministry in the government. The Mission recommends therefore the establishment of a Ministry of Agriculture and Land Use. Within this Ministry and directly under a permanent secretary, it is suggested that directorates-general be organized for each of the following subjects: agriculture and horticulture; animal husbandry; forestry and soil conservation; land settlement; and research. Special sections for administrative and personnel questions, legal affairs, economic research and statistics, and extension and education might form part of the immediate staff of a permanent secretary. Within the Ministry there should also be grouped the more or less autonomous organizations such as the Tobacco Monopoly, the Grain Board, the Agricultural Machinery Administration, the Date Association and the Chambers of Agriculture. The Mission believes that such a ministry would greatly facilitate more effective direction of the government's efforts to improve agriculture and related pursuits.

7: International Bank N, S-4 (1951) 1952 MH1 Iraq MH1



## XII. Forestry

Anyone who contemplates the treeless plains and the barren mountains of Iraq is quickly persuaded of the need of afforestation. The forest area comprises only 25,500 square kilometers in the four northern provinces, and of this area only 17,000 square kilometers is covered by what may really be classified as forest. The remainder is in forest pasture and sub-Alpine shrub. Yet forestry has received little attention. The only trained forester in Iraq is the foreign director of the Forestry Division which is subordinated to the Department of Agriculture. His staff is inadequate to provide proper protection of existing forests, let alone to undertake forest development. Only a small amount of afforestation, soil reclamation and propagation work is in progress. There is no modern forest law. Forests suffer severely from indiscriminate cutting for fuel and charcoal, overgrazing by livestock, shifting cultivation and fire. In the clearing of land for cultivation in the mountainous areas of the North, forest and pasture have been destroyed and land laid waste by erosion.

Afforestation is of vital importance not only to check erosion and help prevent floods but also ultimately to meet the acute shortage of timber for building and fuel. In the plains belts of trees are needed to serve as windbreaks. A detailed forestry program has already been set forth in a lengthy report by a British expert. The Mission can only urge that his recommendations be carried out.

The first step should be to build up an adequate forestry staff and to enact a satisfactory forest law. The Department of Forestry should be given a status equal to that of the present Department of Agriculture. Trained foresters will be required not only at headquarters and in the field but also at the forestry research stations at Abu Ghuraib, Bakrajo and Erbil. Initially some of the foresters, including the director, will have to be recruited abroad. A course in forestry might be given in the agricultural schools at Abu Ghuraib.

In the northern mountains the existing forest areas should be preserved primarily as a means of protecting the catchment of the Tigris and its principal tributaries. Controlled, rotational grazing will be necessary to protect these forests. To furnish a supply of

7: International Bank N, S-4 (1951) 1952 MH1 Iraq MH1



a greater security of tenure. Other factors, which have no doubt affected the permanence of villages in some parts of the irrigation zone in central and southern Iraq, are the salination of the land and the silting of canals. In such cases, the fellahin have no choice but to abandon their villages.

In spite of these differences, however, the villages have a number of characteristics in common. The typical village is a cluster of huts huddled together without any orderly design. There are no communal facilities or open spaces for the recreation of the children. The huts are so constructed as to keep out heat, cold and sandstorms at the minimum expense. Consequently, they consist of a single room with thick walls and a doorway, which usually opens on a small enclosed yard that is used for both cooking food and keeping draft animals. In order to avoid sand and sunlight, windows are either very small or totally lacking; sashes are expensive. Furnishings are limited to such elementary necessities as a mat and a plain table or a bench. Sanitary facilities, including latrines, are generally lacking.

The villages are necessarily located near a source of water, by a canal in the irrigation zone, by a stream or a well in the North. The water is not piped, but must be carried from its source to wherever it is used. Nor is it purified, although the canals in the irrigation zone may be heavily polluted. The water which has been used by men for washing and in which animals have immersed themselves while drinking is often used for human consumption. The constant trampling of the canal banks for these purposes leads to leaks and, hence, to stagnant pools near the adjacent village. Where the source of water is a well, the earth nearby may be dug out for use in the construction of houses and so, similarly, a stagnant pool may be the result. Such pools, combined with the total absence of any sanitary disposal of waste and garbage, constitute a serious danger to health.

Trees are rarely seen in the villages, although they would give relief from the sun and from sandstorms. Trees would also provide firewood instead of the fuels currently used—animal dung, which could be used instead as fertilizer, and brushwood, which has to be gathered with considerable effort. Small gardens for vegetables are unknown. In fact, fruit and vegetables are almost

7: International Bank N, S-4 (1951) 1952 MH1 Iraq MH1



exclusively grown by farmers who specialize in these commodities and who market their produce in the towns.

***Planning the Improvement of the Villages***

Clearly it will not be possible to bring about any substantial and lasting change in the state of some thousands of villages until the root causes of poverty, ignorance and insecurity have been tackled. Only then can thriving communities replace the present villages with their primitive and almost static mode of life.

Legislation for the improvement of villages is already in existence. In 1936, a law (No. 70) for the construction of new villages was passed, empowering the Ministry of Interior to construct or renew villages, having regard particularly to health requirements, such as the construction of sanitary facilities and public baths, the hygienic disposal of waste and the provision of drinking water. A draft law on similar lines, but placing the responsibilty on the Ministry of Social Affairs, was put before Parliament during 1951. Parliament sent it back to the Council of Ministers for amalgamation with the earlier statute. Both are admirable in objective, but both are focussed primarily on the reconstitution of villages on more hygienic lines without regard for the urgent educational and economic aspects of the problem and without recognizing the need to enlist the cooperation of the people. Only a comprehensive and popular program can really reach the people and encourage them to help themselves. That little, in fact, has been done under the 1936 law is itself eloquent testimony to this.

The task of remaking the villages is typically one for the new Community Planning Office. In cooperation with all the government departments concerned and with their advice, it should be able to formulate and issue the necessary regulations, of which those that affect health are only a part, under the power conferred on it by the projected planning enabling act.

The Mission has elsewhere made a number of recommendations designed to raise the standard of living of the rural population. On the agricultural side, these include the organization of an extension service, the creation of cooperatives, measures to improve livestock and the provision of better drainage. Medical recommendations include the opening of more village dispensaries, the

8:Campbell T-5 (no date) 1949 MH1 Iraq MH1



awakened and looked around them, but they could see 539x
neither tent nor camp nor Arabs, and they were not covered by blankets. All around them was desert, and only the horse Rishan could be seen. And Maqdad ran to Rishan and kissed him and said: O my little Rishan, we are camped in the desert far from water, and I have caused you suffering.

The two boys mounted Rishan and they rode off, and Maqdad took his course from the sun and rode to the east, that they might come to the river and find water. And after they had ridden for one hour they saw before them a mound, such a mound as is made from the excavated earth from a well, and Maqdad cried: Here is water. And Ibn Ali said: Make haste, let us drink and let the horse drink for we are thirsty. But Maqdad said: Do you not remember, O my comrade, what my ancestors said last night? Namely, that when approaching water you should circle completely around and observe if the camelthorn [37] • is broken and if there are tracks for you may find enemies drinking from that water.

So they dismounted and took the horse Rishan and tethered him in a dip in the land, then on foot and in the manner of hunters they circled around the well, and they saw that horses had gone up to it and they had not come out from it, and their track was fresh. Then Maqdad and Ibn Ali crept up to the well, keeping the mound of earth between themselves and the well, and they crept beside the mound and looked at the well, yet they could not be seen. And they saw six horses tethered by the well, and they saw six soldiers, and on the ground lay a seventh horse dead, and the soldiers were pushing and pulling its body towards the well.

And Maqdad whispered to Ibn Ali: These dogs must

8:Campbell T-5 (no date) 1949 MH1 Iraq MH1



originates from Africa, possibly as one told by Negroes themselves. There are sharks in the Shatt el Arab and in the Karun River in Arabistan which occasionally take off the leg of a bather as far as eighty miles from the sea and the shark is far better known to the Iraqi than is the crocodile.

4. THE STORY OF THE PRINCE OF KERMANSHAH AND OF HIS MISFORTUNES

*Peacock.* Page 29, Line 25. 'A thousand peacocks.'

I think this bird is only included to give an exotic flavour to the feast. I remember once mentioning that I had shot and eaten peafowl in the Punjab, a statement which was received with much surprise and, I am afraid, some lack of belief, and on a subsequent occasion when someone was describing a feast one of those present shouted, 'Put in a peacock for the Sahib'. In India the peacock is not normally killed by Moslems on the grounds that it is a bird of Paradise. In Iraq, however, I do not doubt that the learned doctors of religion could give the answer straight away if asked. Pigeons which roost on mosques are exempt from molestation, even when destroying crops outside villages. There is incidentally a pretty Iraqi story which explains the large feet of a pigeon. It describes how the pride and arrogance of peacocks offended King Solomon, so to punish them he took away their feet and gave them the feet of the pigeons, that they might always be shamed by their smallness, while the peacocks' large and beautiful feet he gave of course to the pigeons.

5. THE STORY OF THE YOUTH JAMIL, THE SON OF A MERCHANT IN BAGHDAD

Page 43, Line 3. 'The City of Peace.'

Medinat es Salaam or 'City of Peace' is one of the names used in poetry for Baghdad. The city, when first built, was originally named Medinat es Salaam, but it appears that people persisted in referring to it as Baghdad, or Dad's Garden, from some older name for the site of the present city. Arabs love these poetical names, differing from those in normal use. Iraq is sometimes known as Bilad er Rafidain, or Country of the Two Rivers, Jerusalem (Al Quds or the Holy in

3Royal Institute of International Affairs U-4 (no date)1954 M1 Middle East
Iraq MH1



yield of nearly twice that of wheat, it is more popular with farmers. In normal years Iraq grows sufficient barley to ensure an exportable surplus of some 300,000 tons. The main importers in 1950 were Holland and Great Britain.

*Rice* is grown mainly in the marshes of the Lower Tigris and Euphrates near Amara and Suq ash-Shuyukh and in the Hilla and Diwaniya *liwas*, especially in the marshes around Shamiya. A small quantity is grown by irrigation in the valleys of the Kurdish areas. It is sown as a summer crop for harvesting between September and November. Its yield and price are usually higher than those of wheat or barley, but it is more extravagant of water and its cultivation is therefore restricted by law (1932). Before the war there was a small exportable surplus, but exports in recent years have been confined to limited amounts of the inferior qualities.

*Dates.* Iraqi dates constitute four-fifths of the world's production; the Government has a special interest in their cultivation and marketing. The Shatt al-Arab area above Basra, where growing, packing, and marketing are managed by a Date Board representing all interests, has 18 million[1] trees; the other main producing area in Iraq is on the Euphrates upstream from Nasiriya. Date-palms need a plentiful supply of water, but its quality and that of the soil is less important. Some 350 varieties of date are said to be grown in Iraq, of which only four are usually exported in quantity. Total annual production in normal times averages about 288,000 tons; of this about half is exported and half consumed within Iraq, either as food—dates are a staple item of diet—in natural form or as date syrup, or as raw material for the spirit industry. Of the by-products, the fibrous trunk is used for rope-making and the powdered stone for cattle fodder. Selection and packing for export are improving greatly under the supervision of the Government Date Board. The main importers of Iraqi dates were, in 1950, India, the United States, Egypt, Great Britain, Canada, and Pakistan.

### *Forests*

The forests of Iraq, covering an area of 18,000 square kilometres, are of variable density. They were at one time far denser and more extensive, but have been and are still being reduced by shifting cultivation, fires, and uncontrolled cutting and grazing. The Forestry Department of the Ministry of Agriculture is undertaking a programme of conservation and afforestation, which will safeguard the soil, increase timber and

[1] The official figure; the IBRD report gives a figure of only 9·7 million.

3cRoyal Institute of International Affairs U-4 (no date)1954 M1 Middle East
Iraq MH1



185 charcoal production with consequent encouragement of
• 137 secondary industries, and improve climatic conditions.
313

*Problems of Agriculture*

185 Among the natural difficulties which attend agriculture in
654 Iraq are those imposed by drought, floods, dust storms, diseases, pests, and soil erosion, of which the first two are being attacked by a large-scale programme of irrigation and flood-control. The major diseases are the inflorescence rot of dates, wilt diseases of tomato and watermelon, gummosis of citrus, rusts of cereals, and various mildews. The major insect pests are the Moroccan locust, whose ravages have from time to time caused immense damage to cereal crops, the grasshopper, the Mediterranean fruit fly, the date-fruit mite and Dubas bug, and the Sunn pest and bug *Aolia acuminata* which attack wheat and barley. The Ministry of Agriculture is combating these diseases and pests by modern methods; in locust-fighting Iraq is among the most advanced countries in the world. The problem of soil erosion can to some extent be met by the activities of the Forestry Department.

*Irrigation*

312 The aim of water-control in Iraq is to even out the seasonal flow in the two great rivers, Tigris and Euphrates, so as to prevent both drought and flooding in the irrigated areas and to increase the area under cultivation. Irrigation itself imposes the necessity of drainage, to prevent the salting up of irrigated land and the further spread of malaria.

Three methods of irrigation are employed: direct inundation at flood-time, which is used for rice cultivation and is of comparatively limited importance; distribution of water from rivers and canals by direct flow on to the land through a network of small channels and cuts; the lifting of water into the channels and cuts by various methods which include the use of mechanical pumps. The date-palm groves of the Shatt al-Arab benefit by natural irrigation; twice a day as the tide rises and falls fresh water is forced into the creeks and channels and then drains out again.

Irrigation—often highly organized—has been a feature of Iraqi agriculture since the Sumerian civilization, in decline since the seventh century, and especially since the thirteenth and fourteenth centuries. Serious reconstruction began in this century, with the Hindiya barrage, completed in 1913, for which the Euphrates was diverted, and the Kut barrage on the

Diwaniya provinces. In 1949, a co-ordinated control program was introduced by the Iraqi government, and a Bilharzia Section was established within the national health organization. The section initiated a snail survey in the various epidemic foci and research on the most effective methods of snail control. It carries on continuous snail destruction work through special units assigned to each of the infected provinces. 136 164 744

Planta. Little precise information is available regarding the prevalence of allergy-producing plants, but numerous weeds, grasses and trees, which have been incriminated in other countries, are present in districts with rainfall adequate to support such vegetation. 137 752

Occasional deaths, primarily among young children, have been traced to the consumption of the raw beans of *Vicia fava*, a prominent food crop throughout this region. The beans are toxic to susceptible individuals in the raw state. Plants of the *Senecio* group grow in sections of the northern highlands. The young green shoots are poisonous and sometimes cause fatalities among the livestock. 137 165 232

## Food Sanitation

The government and municipal health authorities are responsible for the enforcement of regulations governing the sanitary quality of foods, meats and milk products, but the degree of enforcement varies in different localities. Health inspectors are charged with the supervision of establishments where foods are prepared or sold, such as foodshops, markets, restaurants and cafés, mineral-water bottling works and date-packing houses. Examinations for the presence of venereal diseases are theoretically required at regular intervals in the case of cooks and barbers, but no tests to detect other infections are carried out. 744

Meat animals are inspected before and after slaughter in the city abattoirs by officers of the government veterinary and health services. All carcasses offered for sale are supposed to bear an official stamp of